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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,175	01/17/2001	Michael Z. VanErdewyk	2000-0755.ORI	7036

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10/04/2002

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EXAMINER

BEISNER, WILLIAM H

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 10/04/2002

8

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

09/764,175

Applicant(s)

VANERDEWYK, MICHAEL Z.

Examiner

William H. Beisner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The Examiner recognizes that applicant has not filed any prior art known at the time of filing of the instant application. See applicant's communication dated 26 March 2001.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Anderson (US 5,022,182).

The reference of Anderson discloses a container which is capable of holding, culturing and controllably releasing microorganisms contained therein. The reference discloses a bag container (22) which is made of paper, natural cloth or synthetic cloth (See column 7, lines 1-53). One example discusses using long fiber paper (See column 7, lines 49-53). While the instant claim language defines the bag in terms of release rate of microorganisms, the instant specification discloses the material of the claimed container as a long fiber paper which is the same as that disclosed by the reference of Anderson. As a result, the reference of Anderson is considered to inherently meet the release rates recited in the instant claims.

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4. Claims 7, 8, 10 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hater et al.(US 4,810,385).

The reference of Hater et al. discloses providing a bacterial culture in a burlap bag (11) which is positioned within a dispensing vessel (14) with opening allowing a liquid to contact the bag. The device sinks in a liquid environment and includes a cord (19) for desired positioning with a liquid environment. Note burlap is a biodegradable material. The bacteria culture is controllably released from the bag when contacted with a liquid to be treated.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hater et al.(US 4,810,385) in view of Sasaki et al.(US 4,630,634).

The reference of Hater et al. has been discussed above.

The above claims differ by reciting that the dispensing vessel includes a top floating portion which is threadably attached to the dispensing vessel.

The reference of Sasaki et al. discloses a known device for positioning a dispensing vessel in a liquid environment with a floating portion threadably attached to the dispensing portion of the device (See Figure 1).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the device of Hater et al. with a floating portion as suggested by Sasaki et al. for the known and expected result of providing an alternative means recognized in the art to achieve the same result, positioning a dispensing device in a liquid environment. The material on construction of the dispensing structure would have been obvious based on considerations such as materials which are cheap to manufacture and resistance to the environment to which it will be exposed.

8. Claims 1-4, 6, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hater et al.(US 4,810,385) in view of Michelson (US 4,613,330).

The reference of Hater et al. has been discussed above and discloses a device and method for releasing microorganisms into a liquid environment.

The above claims differ by specifying the release rate of the microorganisms into the environment.

The reference of Michelson discloses that it is known in the art to control the release of a desired element into an environment by containing the element within a porous container. The

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reference discloses that the delivery rate is controlled by selection of appropriate pore size, density and environmental conditions (See column 4, lines 20-23). The reference discloses that the porous membrane can be fabricated from biodegradable materials (See column 4, lines 59-65). Finally the reference discloses that the disclosed technology can be used in a delivery system for ponds or other bodies of water (See column 6, lines 20-26).

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the microorganisms of the reference of Hater et al. in containers other than a burlap bag based merely on the factors discussed by the reference of Michelson. It would have been obvious to one of ordinary skill in the art to determine the optimum pore size based on the desired delivery rate of the microorganisms which would depend on considerations such as the environment employed, size of the specific microorganism employed, the amount of material being treated, etc. while maintaining the efficiency of the treatment system.

9. Claim 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hater et al.(US 4,810,385) in view of Michelson (US 4,613,330) and Anderson (US 5,022,182).

The combination of the references of Hater et al. and Michelson has been discussed above.

The above claims differ by reciting that the porous container is manufactured of a fibrous paper material.

The reference of Anderson discloses a porous container device which is similar to those disclosed by the reference of Michelson. In addition to the materials disclosed by Michelson, the

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reference of Anderson further discloses that long fiber paper can be used (See column 7, lines 49-53).

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ long fiber paper as a container material for the known and expected result of providing an alternative means recognized in the art to achieve the same result, controlled release of a desired material into a liquid environment.

### *Conclusion*

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The references of Francis (US 4,670,149), Haase (US 5,770,079) and Van Erdewyk et al.(US 5,879,932) are cited as prior art which pertains to microorganism contacting devices with liquid environments.

The reference of Rees et al. (US 5,972,332) is cited as prior art which pertains to porous container device for controlled contacting of cells with a treatment environment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Beisner whose telephone number is 703-308-4006. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:40am to 4:10pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Warden can be reached on 703-308-2920. The fax phone numbers for the

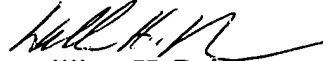
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organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

  
William H. Beisner  
Primary Examiner  
Art Unit 1744

WHB  
September 30, 2002